PROFESSIONAL BREWING PROGRAMS
Summer/Fall 2019
As one of the world's most respected providers of brewing education, we offer comprehensive brewing short courses and programs for novice and experienced brewers and brewing industry professionals. Our instructors are academic experts in brewing science and brewery engineering and have considerable real-world experience.

**INSTRUCTOR SPOTLIGHT**

**Mike Ramsey**

MICHAEL RAMSEY has made a career out of his passion for making wine and beer. He is the teaching laboratory manager for the UC Davis Department of Viticulture and Enology and an instructor in UC Davis Continuing and Professional Education’s brewing and winemaking programs. He teaches the Brewing Microbiology Workshop, as well as the Brewing Chemistry courses. Ramsey’s passion for German wines and English beers developed during his years abroad in the 70s when California’s wines were just starting to show up on the map and the U.S. craft brewing industry had yet to begin. After years of homebrewing, Ramsey earned a degree in fermentation science from UC Davis. “Making a career out of these endeavors of mine seemed like a good way to go through life,” he said.

**How did you get into teaching?**

I began teaching as a guest lecturer for brewing courses in the 90s. At the time, I was directing the brewing operations for a small chain of restaurant breweries, and being an instructor allowed me to observe and interact with people before I hired them. As it turned out, I really enjoyed teaching. It occurred to me that I was far more likely to have an influence in these industries doing research and transferring knowledge than I would by making some single product.

**How would you describe your teaching style?**

I generally start off each class with a round of student introductions. Not only does this help break the ice, it also helps students see who they might want to network with and helps me fine tune my strategy for each class. It’s my hope that the students have a great day learning about a subject they have an interest in, and that we can transfer useful scientific knowledge and techniques in the process.

**What do you want students to take away from your courses?**

There will always be those geniuses and savants in every field who are successful without understanding the science behind what they do. But most of us are not in these categories. Understanding the science of brewing chemistry and microbiology gives us insight into how these systems work, highlights the production and analytical choices available to us, and vastly increases the probabilities of a successful outcome. For me, ultimately, the art of brewing is how you apply the science.
ONLINE BEER QUALITY SERIES
Learn how to make great beer with our online courses in beer quality. These entertaining, self-paced courses from world-renowned brewing expert, Charlie Bamforth, cover foam performance, the science of flavor, beer freshness and why the appearance of beer matters.

Beer Quality: Color and Clarity
July 8-Oct. 4 • $385

Beer Quality: Freshness
July 8-Oct. 4 • $385

Beer Quality: Flavor
Oct. 7-Dec. 27 • $385

Beer Quality: Foam
Oct. 7-Dec. 27 • $385

BREWING SHORT COURSES
Take your craft to the next level with our comprehensive brewing education courses designed for novice and experienced brewers and brewing industry professionals. Classes are held in Davis, Calif.

Brewing Basics: Going Beyond the Kit
Master the basics of brewing all-malt beer. See, smell and taste the raw materials that go into making a fine bottle of beer, and gain the confidence to go beyond the extract homebrewing kit stage.
June 8-9 • $325

Intensive Brewing Science for Practical Brewing
Receive an intensive introduction to the sciences of brewing, drawing a direct connection between brewing science and brewing practice. Build your understanding of the technological and biochemical aspects of the brewing process and examine engineering concepts, such as sanitation, sensory evaluation techniques and quality control.
June 10-14 • $1,400

Brewing Microbiology Workshop
Explore the microbial world of brewing. Receive hands-on microscope training and practical exercises for identifying beer microorganisms. Lecture topics include yeast and bacteria strains, fermentations and brewery sanitation.
June 28-30 • $585

Introduction to Practical Brewing
Designed for advanced homebrewers and early career professional brewers, this in-depth course combines clear and detailed lectures with practical, hands-on brewing and laboratory tests. Go all the way from raw material selection through to the quality and stability of the finished beer.
Aug. 19-23 • $1,400
OR
Dec. 9-13 • $1,400

Introduction to Brewing Calculations
Gain an understanding of the math and science behind brewing calculations. Use real-world examples from the UC Davis pilot brewery to explore the difference between mash, brew house and brewery efficiency. Learn how to calculate oxygen and carbon dioxide requirements along with priming and yeast pitching rates.
Sept. 28 • $280

Brewing Chemistry: Water and Mash
Examine the basics of brewing water and mash chemistry for commercial and advanced homebrewing. Learn the fundamentals of the underlying chemistry critical to successful all-grain brewing. Review basic chemical interactions and equilibriums, and explore their influence on water chemistry.
Oct. 12 • $280

Brewing Chemistry: Hops and Boil
Study the fundamentals of the underlying hop and boil chemistry critical to successful brewing. Examine hop biology, as well as the chemical constituents, bitterness units, dry hopping and chemistry of wort boiling, wort cooling and wort aeration vital in the production of quality wort.
Oct. 13 • $280

Contact Us
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> cpe.ucdavis.edu/brewing
TAKE YOUR CRAFT TO THE NEXT LEVEL

Summer/Fall courses now available

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